CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER 87-151

NPDES PERMIT NO. CA0037401

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

DEPARTMENT OF PARKS AND RECREATION
ANGEL ISLAND STATE PARK
MARIN COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (the Board), finds that:

1. The Department of Parks and Recreation (hereinafter the Department) applied for waste discharge requirements and a reissuance of a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES). The discharger's application, dated August 28, 1987, was for the Angel Island State Park wastewater treatment plant.

2. The California Department of Parks and Recreation (Department) operates the Angel Island State Park in Central San Francisco Bay, as well as the sewage collection and treatment facilities serving this Park. These facilities treat the wastewater from up to 4,000 visitors per day. This wastewater is mainly generated from public restrooms at Ayala Cove.

3. In the past, the wastewater collection and treatment system consisted of several separate septic tanks which discharged directly into the Bay without any further treatment or disinfection. In 1979, the Department received a grant to upgrade the collection system. By 1983, all of the wastewater was pumped to Pt. Ione and discharged.

4. Order 78-97, issued on November 21, 1978, gave an April 1, 1981 deadline for meeting secondary treatment requirements. The Department operated an experimental algal reactor for about a year, for which grant funding was refused. The plant failed to meet secondary treatment requirements, and was subsequently removed. The deadline was not met, and the Department continued to discharge undisinfected, septic effluent.

5. The Department allowed Order 78-97 to expire in June, 1981. Their permit was re-issued in September 15, 1982, in Order 82-48. This order gave an August 1, 1983 deadline for the completion of an RBC. The RBC would come with a secondary clarifier, an equalization tank, sludge removal facilities,

and chlorination/dechlorination facilities.

6. The Department failed to met this deadline. In 1984, CAO 84-007 was issued to abate the effects of discharging undisinfected waste. A deadline for constructing interim chlorination/dechlorination facilities was set. This deadline was met. A CDO 84-73 was issued, to set up another deadline, September 1, 1985, for completing the RBC. The withdrawal of a low bidder necesssitated an amendment of the CDO (Order 85-43), giving a revised deadline of February 15, 1986.

7. This deadline was not met. The RBC was completed in mid-August, 1986, due to a series of design and construction errors. The RBC did not meet its effluent limitations for several months. The effluent had a small, but continuous chlorine residual violations, and there were episodes of high coliform count and low pH.

8. The plant is currently in compliance. The plant is governed by waste discharge requirements in Order No. 82-48, which expired on September 15, 1987.

9. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for San Francisco Bay.

10. The beneficial uses of San Francisco Bay in the vicinity of the outfall are:

    a. Water contact recreation
    b. Non contact water recreation
    c. Commercial and sport fishing
    d. Wildlife habitat
    e. Preservation of habitat for rare and endangered species
    f. Estuarine habitat
    g. Fish migration and spawning
    h. Shellfish harvesting
    i. Navigation

11. The Basin Plan prohibits the discharge of any wastewater which has particular characteristics of concern to beneficial uses at any point where wastewater does not receive an initial dilution of at least 10:1.

12. This Order serves as an NPDES permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

13. The discharger and interested persons have been notified of the Board's intent to revise requirements for the existing discharge and have been provided with the opportunity to

submit their written comments.

14. The Board, in a properly-noticed public hearing, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder and to the provisions of the Federal Water Pollution Control Act, as amended, and regulations and guidelines adopted thereunder, that the discharger shall comply with the following:

A. Prohibitions

1. The discharger is prohibited from bypassing or overflowing wastewater to waters of the State, either at the plant or from the collection system.

2. The discharger is prohibited from discharging wastewater at any point at which the wastewater does not receive an initial dilution of at least 10:1 (receiving water to wastewater flow).

B. Effluent Limitations

1. The discharge of an effluent containing constituents in excess of the following limits is prohibited:

	Constituents	Units	Monthly Average	Weekly Average	Daily Maximum	Instantaneous Maximum
a.	BOD	mg/l	30	45	60	
b.	Suspended Solids	mg/l	30	45	60	
c.	Oil & Grease	mg/l	10	-	20	
d.	Settleable Solids	ml/l-hr	0.1	-	-	0.2
e.	Chlorine Residual	mg/l	-	-	-	0.0

f. Total Coliform Organisms

The waste as discharged, or at some place in the treatment process, shall meet or exceed the following limits of quality. The total coliform bacteria for a median of five consecutive effluent samples shall not exceed 240 per 100 milliliters. Any single sample shall not exceed a most probable number (MPN) of 10,000 total coliform when verified by a repeat sample taken within

48 hours.

g. Toxicity

The survival of test fishes acceptable to the Executive Officer in 96-hour effluent bioassays shall achieve a 90 percentile value of not less than 50 percent survival.

h. pH

The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

i. Representative samples of effluent shall not exceed the following limits:

	(Daily Average)[a] (all values in ug/l)
Arsenic	200
Cadmium	30
Chromium (VI)[b]	110
Copper	200
Cyanide	25
Lead	56
Mercury	1
Nickel	71
Silver	23
Zinc	580
Phenols	500
PAHs[c]	150

[a] These limits are based on combination of fresh and salt water quality objectives, technological achievability, limits of detection, and limited allowance for dilution. They are intended to be achieved through a combination of Best Available Technology and source control.

[b] Dischargers may at their option meet this limit as total chromium.

[c] As identified by EPA Method 610. If a discharge exceeds the limit for PAHs, concentrations of individual constituents should be reported.

2. The arithmetic mean of the biochemical oxygen demand (5 day, 20°C) and suspended solids values, by weight, for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period (85% removal).

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of the these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

   a. Dissolved oxygen: 5.0 mg/l minimum. The median of any three consecutive samples shall not be less than 80% saturation. When natural factors cause lesser concentrations than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.

   b. Dissolved sulfide: 0.1 mg/l maximum.

   c. pH: Variation from natural ambient pH by more than 0.2 pH units.

   d. Un-ionized Ammonia as N: 0.025 mg/l annual median and 0.4 mg/l maximum.

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and

modify this Order in accordance with such more stringent standards.

D. Provisions

1. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 82-48, except that Order No. 82-48 shall remain in effect for purposes of enforcement of Cease and Desist order No. 85-43.

2. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:

   Mass emission limit in lbs/day = Concentration limit in mg/l x 8.34 x Actual flow in mgd averaged over the time interval to which the limit applies.

3. The discharger shall comply with all sections of this order immediately except as stipulated in provision 4 below.

4. The discharger shall employ a plant operator with at least a Grade II certification to supervise operation of the sewage treatment plant, or demonstrate to the Executive Officer's satisfaction that an equivalent level or supervision is being maintained.

5. The discharger shall permit the Regional Board or its authorized representative in accordance with California Water Code Section 13267 (c):

   a. Entry upon premises in which an effluent source is located or in which any required records are kept.

   b. Access to copy any records required to be kept under terms and conditions of this Order.

   c. Inspection of monitoring equipment or records.

   d. Sampling ofany discharge or water reuse.

6. The discharger shall comply with the Self-Monitoring Program as ordered by the Executive Officer.

7. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December, 1986.

8. This order expires on November 18, 1992. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days

in advance of this expiration date as application for issuance of new waste discharge requirements.

9. This order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective 10 days after the date of its adoption, provided that the Regional Administrator of the Environmental Protection Agency has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on November 18, 1987.

ROGER B. JAMES
Executive Officer

Attachments:
Location Map
Standard Provisions (Dec. 1986)
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

FINAL
SELF-MONITORING PROGRAM
FOR

DEPARTMENT OF PARKS AND RECREATION

ANGEL ISLAND STATE PARK

MARIN COUNTY

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

I. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by a waste discharger, also referred to as a self-monitoring program, are:

1. To document compliance with waste discharge requirements and prohibitions established by this Regional Board.

2. To facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge.

II. DESCRIPTION OF SAMPLING AND OBSERVATION STATIONS

A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment
E-001	At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present
P-1 to P-4	Located at the corners of the perimeter fenceline surrounding the treatment plant
O-1 to O-n	Bypass or overflows from manholes, pump-stations or collection systems

III. SCHEDULE FOR SAMPLING AND OBSERVATIONS

See attached table

IV. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Violations of Requirements

In the event the discharger is unable to comply with

the requirements of the waste discharge requirements and prohibitions due to:

(a) maintenance work, power failures, or breakdown of waste treatment equipment, or

(b) accidents casued by human error or negligence, or

(c) other causes such as acts of nature,

The discharger shall notify the Regional Board office by telephone as soon as she or her agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written report shall include pertinent information explaining reasons for the noncompliance and shall indicate what steps were taken to prevent the problem from recurring.

2. Self-Monitoring Report

Written reports shall be filed with the Regional Board monthly, and are due on the 15th day of the following month. The reports shall specifically cover each applicable point in the monitoring program. Any violations shall be clearly identified, and actions taken or planned for correcting violations shall be included. Monitoring reports shall be signed by the District Superintendent or his duly authorized representative.

The letter shall contain the following statement: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possbility of fine and imprisonment for knowing violations."

3. Annual Report

An annual report summarizing the compliance record of the treatment plant shall be submitted to the Board by January 30 of each year. This report shall contain a summary and analysis of the water quality data from the effluent station. The report shall also contain a list of all violations of requirements in the previous

year.

4. Bypass or Overflow Report

Bypasses or overflows shall be reported to this Regional Board by telephone immediately after occurance. A written report shall be filed with the Board within 5 working days, which shall contain information such as the quantity involved, location, course of bypass, nature of effects, and corrective actions taken.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 87-151.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and reivisions will be ordered by the Executive Officer.

Roger B. James
Executive Officer

Effective Date NOVEMBER 24, 1987

TABLE 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A-001		E-001		C	P	O						
TYPE OF SAMPLE	C-24	G	C-24	G	G	O	O						
Flow Rate (mgd)	D		D										
BOD, 5-day, 20°C, or COD (mg/l & kg/day)	M		W										
Chlorine Residual & Dosage (mg/l & kg/day)				D									
Settleable Matter (ml/l-hr.)				D									
Total Suspended Matter (mg/l & kg/day)	M		W										
Oil and Grease (mg/l & kg/day)				M (1)									
Coliform (Total) (MPN/100 ml) per req't				W									
Fish Tox'y 96-hr. TL % Surv'l in undiluted waste			Q										
Ammonia Nitrogen (mg/l & kg/day)			M										
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)													
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity (Jackson Turbidity Units)													
pH (units)				D	(2)								
Dissolved Oxygen (mg/l and % Saturation)				D	(2)								
Temperature (°C)				D	(2)								
Apparent Color (color units)													
Secchi Disc (inches)													
Sulfides (if DO<2.0 mg/l) Total & Dissolved (mg/l)				D									
Arsenic (mg/l & kg/day)													
Cadmium (mg/l & kg/day)													
Chromium, Total (mg/l & kg/day)													
Copper (mg/l & kg/day)													
Cyanide (mg/l & kg/day)													
Silver (mg/l & kg/day)													
Lead (mg/l & kg/day)													

TABLE 1 (continued)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A-001		E-001		C	P	O						
TYPE OF SAMPLE	C-24	G	C-24	G	G	O	O						
Mercury (mg/l & kg/day)													
Nickel (mg/l & kg/day)													
Zinc (mg/l & kg/day)													
Phenolic Compounds (mg/l & kg/day)													
All Applicable Standard Observations					(2)	W	E						
Bottom Sediment Analyses and Observations													
Total Ident. Chlor. Hydrocarbons (mg/l & kg/day)													
Un-ionized Ammonia (mg/)					(2)								

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour (flow-
C-X = composite sample - X hours propor-
(used when discharge does not tioned)
continue for 24-hour period)
Cont = continuous sampling
DI = depth-intergrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwaters stations

FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/y = once in March and once in September
Q = quarterly, once in March, June, Sept. and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

FOOTNOTES TO TABLE I

(1) Oil and grease sampling shall consist of 3 grab samples taken at equal intervals during the sampling day, with each grab being collected in a glass container. A composite shall be made using equal volumes of each grab. Each glass container used for sample collection of mixing shall be throughly rinsed with solvent as soon as possible after use, and the solvent rinsings shall be added to the composite wastewater sample for extraction and analysis.

(2) The discharger will submit a proposal for a special receiving water samping program, on or before February 3, 1986. The proposal will be subject to the Executive Officer's approval. The proposal should include sampling of at least those parameters indicated in Table 1, and at least twice during the 1986 summer. The Executive Officer will determine if additional receiving water monitoring is necessary based on the results of this special sampling program.